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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/897,751	06/29/2001	Naomi H. Harley	5986/IH320US1	8214

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EXAMINER

HANNAHER, CONSTANTINE

ART UNIT	PAPER NUMBER
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2878

DATE MAILED: 03/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application N .

09/897,751

Applicant(s)

HARLEY ET AL.

Examiner

Constantine Hannaher

Art Unit

2878

-- The MAILING DATE of this communication appears n th cover sheet with the correspondenc address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5,6. 6) ☐ Other: .

**DETAILED ACTION****Information Disclosure Statement**

1. As set forth in MPEP § 609:

37 CFR 1.98(b) requires that each item of information in an IDS be identified properly. U.S. patents must be identified by the inventor, patent number, and issue date. U.S. patent application publications must be identified by the applicant, patent application publication number, and publication date. U.S. applications must be identified by the inventor, the eight digit application number (the two digit series code and the six digit serial number), and the filing date. If a U.S. application being listed in an IDS has been issued as a patent, the applicant should list the patent in the IDS instead of the application. Each foreign patent or published foreign patent application must be identified by the country or patent office which issued the patent or published the application, an appropriate document number, and the publication date indicated on the patent or published application. Each publication must be identified by publisher, author (if any), title, relevant pages of the publication, date and place of publication. The date of publication supplied must include at least the month and year of publication, except that the year of publication (without the month) will be accepted if the applicant points out in the information disclosure statement that the year of publication is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the particular month of publication is not in issue. The place of publication refers to the name of the journal, magazine, or other publication in which the information being submitted was published.

2. Regarding the request for consideration of any documents cited in applicant's specification, MPEP § 609 makes clear that "information listed in the specification rather than in a separate paper... need not be considered by the examiner." Also, since there has not been a 37 CFR 1.106 since 1997. The remarks submitted with the information disclosure statements have long been antiquated.

3. It is a curiosity that of the three references of category "Y" in the search report from a domestic patent office submitted October 25, 2001, one has not been listed or supplied.

**Specification**

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Note the use of "The present invention relates to..." and "The invention further describes..." and "In a preferred embodiment of the invention..." all of which can be implied.

5. Section 608.01 of the MPEP states in part:

In order to minimize the necessity in the future for converting dimensions... to the metric system of measurements when using printed patents... all patent applicants should use the metric (S.I.) units followed by the equivalent English units when describing their inventions....

The Assistant Secretary and Commissioner of Patents and Trademark strongly reiterated and emphasized strong encouragement for patent applicants to use the metric system in patent applications in a message appearing at 1135 O.G. 55 dated February 18, 1992. At some future time, the USPTO will consider making it a requirement.

Note the use of the mil and the N (for normality). The Examiner is unable to require the use of SI units.

6. The use of the trademark MYLAR has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

No generic language is found.

**Claim Rejections - 35 USC § 112**

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1-30 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not describe a diffusion barrier which generally isolates a solid state nuclear track detector from *radiation* in the internal volume of space as recited by independent claim 1. Instead, the specification consistently describes a diffusion barrier which generally isolates a solid state nuclear track detector from *thoron radiation* in the internal volume of space. Since radon is allowed to enter the internal volume of space of the second and third chambers, see page 7, lines 14-15 of the specification, and radon incontrovertibly decays and thus creates radiation, which radiation (or that of daughters in the radon decay series) may be fairly expected to reach the solid state nuclear track detector, it is apparent that the diffusion barrier **102, 103** cannot serve to isolate the solid state nuclear track detector from *radiation* without limitation. Thus one skilled in the art is unable to make and use the invention as claimed. The balance of the claims is rejected on the basis of their dependence.

### **Claim Rejections - 35 USC § 103**

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1, 8-12, 14-24, and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harley *et al.* (US005134297A) in view of Lucas (US004975574A).

With respect to independent claim 1, Harley *et al.* discloses a radiation monitor **20** comprising a chamber comprising an electrically conductive housing (column 5, lines 11-17) having walls defining an internal volume of space, at least one hole **32** through a cap **30** of the housing for permitting entry of ambient air into the internal volume of space (column 5, lines 18-23), and a first solid state nuclear track detector **64** disposed with the housing with a thin electrically conducting cover **52**. The radiation monitor of Harley *et al.* further comprises another solid state nuclear track detector which is generally isolated from radiation in the internal volume of space of the housing (column 7, lines 51-57) but it is not in a separate chamber. Lucas discloses a radiation monitor comprising a first chamber **22A** with a hole **23A** and first solid state nuclear track detector **30** and a second chamber **22B** with a hole **23B** and second solid state nuclear track detector **30**. In view of the advantageous shielding of second solid state nuclear track detector **30** in the second chamber **22B** from unintentional and stray alpha radiation as described by Lucas (column 9, lines 22-44) it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the radiation monitor **20** of Harley *et al.* to comprise a second chamber for the additional

solid state nuclear track detector **64** which is generally isolated from radiation. The radiation monitor **20** of Harley *et al.* further comprises diffusion barrier **37** (column 5, lines 56-62). In view of a third solid state nuclear track material in the radiation monitor **20** of Harley *et al.*, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the radiation monitor further to establish a separate chamber therefor such that each detector responded only to radiation from its own internal volume of space. Although there is no claim requirement that prevents the first chamber from comprising a diffusion barrier, it may be noted that elements **24** closing up the holes **23A**, **23B** in the radiation monitor of Lucas are intended as mechanical filters (column 6, lines 51-53) and do not serve as a barrier to any radioactive gas. Accordingly, in view of the ability to compare radiation measurements of chambers with a diffusion barrier and a chamber without a diffusion barrier, when Harley *et al.* already supplies a redundant third detector (claim 16), it would have been obvious to one of ordinary skill in the art at the time the invention was made to leave off the diffusion barrier for a first chamber.

With respect to dependent claim 8, the radiation monitor **20** of Harley *et al.* further comprises a fastening portion **22**.

With respect to dependent claim 9, there is generally no electrical charge present on the radiation monitor **20** of Harley *et al.* (column 7, lines 6-7).

With respect to dependent claim 10, the arrangement of multiple chambers in the radiation monitor suggested by Harley *et al.* and Lucas is a choice within the ordinary skill in the art in view of the desired performance.

With respect to dependent claim 11, the housing suggested by Harley *et al.* is cylindrically shaped (column 6, line 9).

With respect to dependent claim 12, the housing suggested by Harley *et al.* is made of an electrically conductive material that shields the inside of the housing (that is to say, its internal volume of space) from radiation (column 5, lines 15-17). Lucas confirms that a radiation shielding material is desirable (column 6, lines 35-45).

With respect to dependent claim 14, Harley *et al.* identifies the three solid state nuclear track detectors as "film" (column 6, line 59).

With respect to dependent claim 15, Harley *et al.* identifies allyl diglycol carbonate as a suitable material for the three solid state nuclear track detectors (column 6, line 59).

With respect to dependent claim 16, Harley *et al.* identifies cellulose acetate as a suitable material for the three solid state nuclear track detectors (column 2, line 41).

With respect to dependent claim 17, the chamber of Harley *et al.* comprises a conducting foam **37**. The prevention of the entry of dust is described by Lucas (column 6, lines 51-53) as a useful characteristic for the material at the holes. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the foam **37** of Harley *et al.* placed at the holes of the chamber served to generally prevent the entry of dust.

With respect to dependent claim 18, a redundant arrangement is already present in the radiation monitor **20** of Harley *et al.* It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the monitor suggested by Harley *et al.* and Lucas comprise as many chambers as thought desirable in view of the performance desired of confirming the measurement in one chamber with a measurement from another, similarly constructed chamber in close physical proximity.



With respect to dependent claim 19, the radiation monitor **20** of Harley *et al.* further comprises a fastening portion **22**. Additional fastening portions would have been within the ordinary skill in the art in order to provide flexibility for the ultimate user.

With respect to dependent claim 20, the radiation monitor **20** of Harley *et al.* further comprises a fastening portion **22**.

With respect to dependent claim 21, there is generally no electrical charge present on the radiation monitor **20** of Harley *et al.* (column 7, lines 6-7).

With respect to dependent claim 22, the arrangement of multiple chambers in the radiation monitor suggested by Harley *et al.* and Lucas is a choice within the ordinary skill in the art in view of the desired performance.

With respect to dependent claim 23, the housing suggested by Harley *et al.* is cylindrically shaped (column 6, line 9).

With respect to dependent claim 24, the housing suggested by Harley *et al.* is made of an electrically conductive material that shields the inside of the housing (that is to say, its internal volume of space) from radiation (column 5, lines 15-17). Lucas confirms that a radiation shielding material is desirable (column 6, lines 35-45).

With respect to dependent claim 26, Harley *et al.* identifies the three solid state nuclear track detectors as "film" (column 6, line 59).

With respect to dependent claim 27, Harley *et al.* identifies allyl diglycol carbonate as a suitable material for the three solid state nuclear track detectors (column 6, line 59).

With respect to dependent claim 28, Harley *et al.* identifies cellulose acetate as a suitable material for the three solid state nuclear track detectors (column 2, line 41).

With respect to dependent claim 29, the chamber of Harley *et al.* comprises a conducting foam 37. The prevention of the entry of dust is described by Lucas (column 6, lines 51-53) as a useful characteristic for the material at the holes. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the foam 37 of Harley *et al.* placed at the holes of the chamber served to generally prevent the entry of dust.

**Response to Submission(s)**

12. This application has been published as US2002/0014596A1 on February 7, 2002.
13. An indication of allowability cannot be made for claims rejected under 35 U.S.C. 112, first paragraph, but the references do not suggest the extra seal, the insert, the particular nickel coating, or the calculation of uncertainty in the context of a radiation monitor of the type recited.

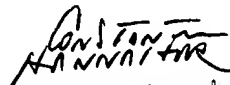
**Conclusion**

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Constantine Hannaher whose telephone number is (703) 308-4850. The examiner can normally be reached on Monday-Friday with flexible hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (703) 308-4852. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

ch  
March 3, 2003

  
Constantine Hannaher  
Primary Examiner